

**BLZ 7.62HP/04/180LR SN OR BX**
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)
**Product image**


Similar to illustration

**Power on board - 100% safety, 100% integration, 100% cost-effectiveness:**

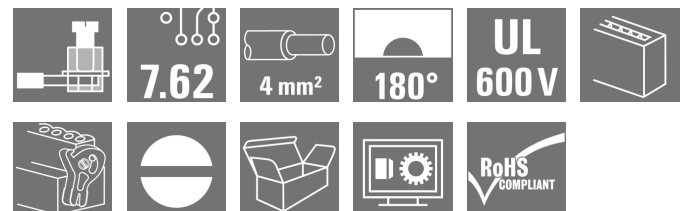
The compact, efficient solution for UL-600V applications in the lower performance range up to 12kVA.

- 29 A at 630 V (IEC)
- 20 A at 600 V (UL)
- Single compartment mating profile
- Clamping range: 0.08 - 4 mm<sup>2</sup> / AWG 28 - 12

Assistance with device approval:

- meets the requirements for 600 V in accordance with UL508/UL840
- meets the more stringent touch-safety requirements of IEC68100-5-1

The slimming cure for multiple-stage device series:  
reduced size and cut costs in the high-volume lower performance range without compromising device approval!


**General ordering data**

|              |                                                                                                                                                 |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4, 180°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">1093490000</a>                                                                                                                      |
| Type         | BLZ 7.62HP/04/180LR SN OR BX                                                                                                                    |
| GTIN (EAN)   | 4032248864478                                                                                                                                   |
| Qty.         | 35 pc(s).                                                                                                                                       |
| Product data | IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup><br>UL: 600 V / 20 A / AWG 20 - AWG 12                                                               |
| Packaging    | Box                                                                                                                                             |

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**Technical data****Dimensions and weights**

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 23.4 mm | Depth (inches)  | 0.921 inch |
| Height     | 18.3 mm | Height (inches) | 0.72 inch  |
| Net weight | 6 g     |                 |            |

**System Parameters**

|                                              |                                      |                                            |                     |
|----------------------------------------------|--------------------------------------|--------------------------------------------|---------------------|
| Product family                               | OMNIMATE Power - series BL/SL 7.62HP | Type of connection                         | Field connection    |
| Wire connection method                       | Clamping yoke connection             | Pitch in mm (P)                            | 7.62 mm             |
| Pitch in inches (P)                          | 0.3 inch                             | Conductor outlet direction                 | 180°                |
| Number of poles                              | 4                                    | L1 in mm                                   | 22.86 mm            |
| L1 in inches                                 | 0.9 inch                             | Number of rows                             | 1                   |
| Pin series quantity                          | 1                                    | Rated cross-section                        | 2.5 mm <sup>2</sup> |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch               | Touch-safe protection acc. to DIN VDE 0470 | IP 20               |
| Protection degree                            | IP20                                 | Volume resistance                          | 5.00 mΩ             |
| Can be coded                                 | Yes                                  | Stripping length                           | 7 mm                |
| Tightening torque, min.                      | 0.4 Nm                               | Tightening torque, max.                    | 0.5 Nm              |
| Clamping screw                               | M 2.5                                | Screwdriver blade                          | 0.6 x 3.5           |
| Screwdriver blade standard                   | DIN 5264                             | Plugging cycles                            | 25                  |
| Plugging force/pole, max.                    | 9.5 N                                | Pulling force/pole, max.                   | 8.5 N               |

**Material data**

|                                       |                            |                                       |        |
|---------------------------------------|----------------------------|---------------------------------------|--------|
| Insulating material                   | PBT                        | Colour                                | orange |
| Colour chart (similar)                | RAL 2000                   | Insulating material group             | IIIa   |
| Comparative Tracking Index (CTI)      | ≥ 200                      | UL 94 flammability rating             | V-0    |
| Contact material                      | Copper alloy               | Contact surface                       | tinned |
| Layer structure of plug contact       | 4...8 μm Sn hot-dip tinned | Storage temperature, min.             | -40 °C |
| Storage temperature, max.             | 70 °C                      | Operating temperature, min.           | -50 °C |
| Operating temperature, max.           | 100 °C                     | Temperature range, installation, min. | -25 °C |
| Temperature range, installation, max. | 100 °C                     |                                       |        |

**Conductors suitable for connection**

|                                                                     |                      |
|---------------------------------------------------------------------|----------------------|
| Clamping range, min.                                                | 0.08 mm <sup>2</sup> |
| Clamping range, max.                                                | 4 mm <sup>2</sup>    |
| Wire connection cross section AWG, min.                             | AWG 28               |
| Wire connection cross section AWG, max.                             | AWG 12               |
| Solid, min. H05(07) V-U                                             | 0.2 mm <sup>2</sup>  |
| Solid, max. H05(07) V-U                                             | 4 mm <sup>2</sup>    |
| Flexible, min. H05(07) V-K                                          | 0.2 mm <sup>2</sup>  |
| Flexible, max. H05(07) V-K                                          | 4 mm <sup>2</sup>    |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm <sup>2</sup> min. |                      |
| w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm <sup>2</sup> max. |                      |
| w. wire end ferrule, DIN 46228 pt 1, min.                           | 0.2 mm <sup>2</sup>  |
| w. wire end ferrule, DIN 46228 pt 1, max.                           | 2.5 mm <sup>2</sup>  |
| Plug gauge in accordance with EN 60999 a x b; ø                     | 2.8 mm x 2.4 mm      |

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## Technical data

|                     |                                        |                              |                              |
|---------------------|----------------------------------------|------------------------------|------------------------------|
| Clampable conductor | Cross-section for conductor connection | Type                         | fine-wired                   |
|                     |                                        | nominal                      | 0.25 mm <sup>2</sup>         |
|                     | wire end ferrule                       | Stripping length             | nominal 10 mm                |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H0.25/12 HBL</a> |
|                     | Cross-section for conductor connection | Type                         | fine-wired                   |
|                     |                                        | nominal                      | 0.34 mm <sup>2</sup>         |
|                     | wire end ferrule                       | Stripping length             | nominal 10 mm                |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H0.34/12 TK</a>  |
|                     | Cross-section for conductor connection | Type                         | fine-wired                   |
|                     |                                        | nominal                      | 0.5 mm <sup>2</sup>          |
|                     | wire end ferrule                       | Stripping length             | nominal 6 mm                 |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H0.5/6</a>       |
|                     | Cross-section for conductor connection | Type                         | fine-wired                   |
|                     |                                        | nominal                      | 0.75 mm <sup>2</sup>         |
|                     | wire end ferrule                       | Stripping length             | nominal 6 mm                 |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H0.75/6</a>      |
|                     | Cross-section for conductor connection | Type                         | fine-wired                   |
|                     |                                        | nominal                      | 1 mm <sup>2</sup>            |
|                     | wire end ferrule                       | Stripping length             | nominal 6 mm                 |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H1.0/6</a>       |
|                     | Cross-section for conductor connection | Type                         | fine-wired                   |
|                     |                                        | nominal                      | 1.5 mm <sup>2</sup>          |
|                     | wire end ferrule                       | Stripping length             | nominal 7 mm                 |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H1.5/7</a>       |
|                     | Cross-section for conductor connection | Type                         | fine-wired                   |
|                     |                                        | nominal                      | 2.5 mm <sup>2</sup>          |
|                     | wire end ferrule                       | Stripping length             | nominal 7 mm                 |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H2.5/7</a>       |

Reference text The outside diameter of the plastic collar should not be larger than the pitch (P), Length of ferrules is to be chosen depending on the product and the rated voltage.

## Rated data acc. to IEC

|                                                                           |                        |                                                                       |                   |
|---------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------|-------------------|
| tested acc. to standard                                                   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 29 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 26.5 A                 | Rated current, min. number of poles (Tu=40°C)                         | 25 A              |
| Rated current, max. number of poles (Tu=40°C)                             | 23 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 630 V             |
| Rated voltage for surge voltage class / pollution degree III/2            | 500 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 400 V             |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 4 kV                   | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 6 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 6 kV                   | Short-time withstand current resistance                               | 3 x 1s with 180 A |
| Clearance, min.                                                           | 9.8 mm                 | Creepage distance, min.                                               | 11.3 mm           |

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**Technical data****Rated data acc. to CSA**

|                                   |        |                                   |        |
|-----------------------------------|--------|-----------------------------------|--------|
| Rated voltage (Use group B / CSA) | 600 V  | Rated voltage (Use group C / CSA) | 600 V  |
| Rated voltage (Use group D / CSA) | 600 V  | Rated current (Use group B / CSA) | 20 A   |
| Rated current (Use group C / CSA) | 20 A   | Rated current (Use group D / CSA) | 5 A    |
| Wire cross-section, AWG, min.     | AWG 20 | Wire cross-section, AWG, max.     | AWG 12 |

**Rated data acc. to UL 1059**

Institute (cURus)



Certificate No. (cURus)

E60693

|                                       |                                                                        |                                       |        |
|---------------------------------------|------------------------------------------------------------------------|---------------------------------------|--------|
| Rated voltage (Use group B / UL 1059) | 600 V                                                                  | Rated voltage (Use group C / UL 1059) | 600 V  |
| Rated voltage (Use group D / UL 1059) | 600 V                                                                  | Rated current (Use group B / UL 1059) | 20 A   |
| Rated current (Use group C / UL 1059) | 20 A                                                                   | Rated current (Use group D / UL 1059) | 5 A    |
| Wire cross-section, AWG, min.         | AWG 20                                                                 | Wire cross-section, AWG, max.         | AWG 12 |
| Reference to approval values          | Specifications are maximum values, details - see approval certificate. |                                       |        |

**Packing**

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 338 mm |
| VPE width | 130 mm | VPE height | 27 mm  |

**Type tests**

|                                              |            |                                                                                  |
|----------------------------------------------|------------|----------------------------------------------------------------------------------|
| Test: Durability of markings                 | Standard   | DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96 |
|                                              | Test       | mark of origin, type identification, pitch, type of material, date clock         |
|                                              | Evaluation | available                                                                        |
|                                              | Test       | durability                                                                       |
| Test: Misengagement (Non-interchangeability) | Evaluation | passed                                                                           |
|                                              | Standard   | DIN EN 61984 section 6.3 and 6.9.1 / 09.02                                       |
|                                              | Test       | 180° turned with coding elements                                                 |
|                                              | Evaluation | passed                                                                           |
|                                              | Test       | 180° turned without coding elements                                              |
|                                              | Evaluation | passed                                                                           |

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**Technical data**

|                                                           |                |                                                                                    |                              |
|-----------------------------------------------------------|----------------|------------------------------------------------------------------------------------|------------------------------|
| Test: Clampable cross section                             | Standard       | DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02 |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | solid 0.5 mm <sup>2</sup>    |
|                                                           |                | Type of conductor and conductor cross-section                                      | stranded 0.5 mm <sup>2</sup> |
|                                                           |                | Type of conductor and conductor cross-section                                      | solid 2.5 mm <sup>2</sup>    |
|                                                           |                | Type of conductor and conductor cross-section                                      | stranded 2.5 mm <sup>2</sup> |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 20/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 20/19                    |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 12/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 12/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |
| Test for damage to and accidental loosening of conductors | Standard       | DIN EN 60999-1 section 9.4 / 12.00                                                 |                              |
|                                                           | Requirement    | 0.2 kg                                                                             |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | AWG 28/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 28/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |
|                                                           | Requirement    | 0.3 kg                                                                             |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | H05V-U0.5                    |
|                                                           |                | Type of conductor and conductor cross-section                                      | H05V-K0.5                    |
|                                                           | Evaluation     | passed                                                                             |                              |
|                                                           | Requirement    | 0.7 kg                                                                             |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | AWG 14/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 14/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |
|                                                           | Requirement    | 0.9 kg                                                                             |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | H07V-U4.0                    |
|                                                           |                | Type of conductor and conductor cross-section                                      | H07V-K4.0                    |
|                                                           | Evaluation     | passed                                                                             |                              |

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|               |                |                                               |           |
|---------------|----------------|-----------------------------------------------|-----------|
| Pull-out test | Standard       | DIN EN 60999-1 section 9.5 / 12.00            |           |
|               | Requirement    | ≥5 N                                          |           |
|               | Conductor type | Type of conductor and conductor cross-section | AWG 28/1  |
|               |                | Type of conductor and conductor cross-section | AWG 28/19 |
|               | Evaluation     | passed                                        |           |
|               | Requirement    | ≥20 N                                         |           |
|               | Conductor type | Type of conductor and conductor cross-section | H05V-U0.5 |
|               |                | Type of conductor and conductor cross-section | H05V-K0.5 |
|               | Evaluation     | passed                                        |           |
|               | Requirement    | ≥50 N                                         |           |
|               | Conductor type | Type of conductor and conductor cross-section | AWG 14/1  |
|               |                | Type of conductor and conductor cross-section | AWG 14/19 |
|               |                | Type of conductor and conductor cross-section | H07V-K4.0 |
|               | Evaluation     | passed                                        |           |
|               | Requirement    | ≥60 N                                         |           |
|               | Conductor type | Type of conductor and conductor cross-section | H07V-U4.0 |
|               | Evaluation     | passed                                        |           |

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002638    | ETIM 7.0    | EC002638    |
| ETIM 8.0    | EC002638    | ECLASS 9.0  | 27-44-03-09 |
| ECLASS 9.1  | 27-44-03-09 | ECLASS 10.0 | 27-44-03-09 |
| ECLASS 11.0 | 27-46-02-02 | ECLASS 12.0 | 27-46-02-02 |

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**Technical data****Important note**

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IPC conformity | Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.                                                                                                                                                                                                                                                                                                                                                                         |
| Notes          | <ul style="list-style-type: none"> <li>• Additional variants on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• P on drawing = pitch</li> <li>• Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.</li> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul> |

**Approvals**

Approvals



|                         |            |
|-------------------------|------------|
| ROHS                    | Conform    |
| UL File Number Search   | UL Website |
| Certificate No. (cURus) | E60693     |

**Downloads**

|                                             |                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>                                                                                                                                                                                                                                                                                                                            |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                                                                                                                                                                                                                                                                                                                                            |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                                                                                                                                                                                                                                                                                                                               |
| Product Change Notification                 | <a href="#">20220627 Change OMNIMATE® Power BLZ 7.62HP</a><br><a href="#">20220627 Technische Änderung OMNIMATE® Power BLZ 7.62HP</a>                                                                                                                                                                                                                                      |
| User Documentation                          | <a href="#">QR-Code product handling video</a>                                                                                                                                                                                                                                                                                                                             |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                                                                                                                                                                                                                                                                                                                   |
| Brochures                                   | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">FL HEATING ELECTR EN</a><br><a href="#">FL APPL INVERTER EN</a><br><a href="#">FL_BASE_STATION_EN</a><br><a href="#">FL ELEVATOR EN</a><br><a href="#">FL POWER SUPPLY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a> |

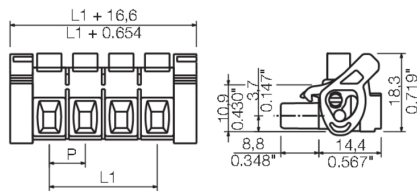
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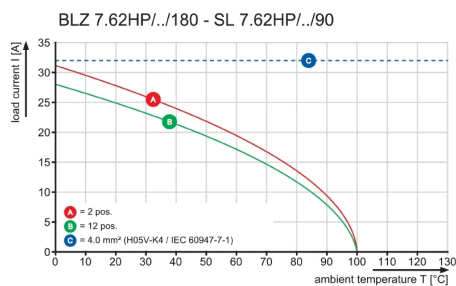
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## Drawings

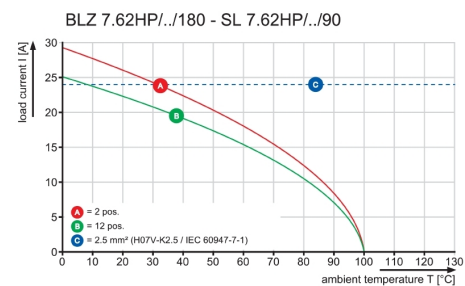
### Dimensional drawing



### Graph



### Graph

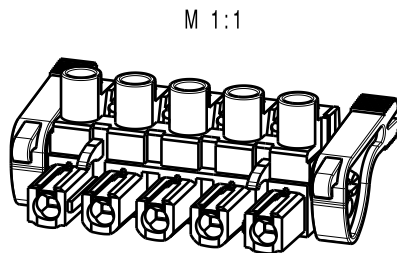
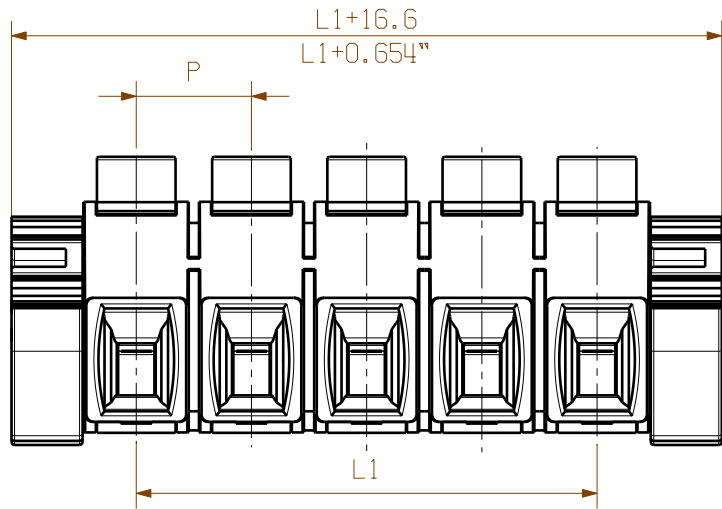


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Dimensions without tolerances are no check dimensions

The English version is binding



|    |         |           |
|----|---------|-----------|
| 12 | 83,82   | 3,300     |
| 11 | 76,20   | 3,000     |
| 10 | 68,58   | 2,700     |
| 9  | 60,96   | 2,400     |
| 8  | 53,34   | 2,100     |
| 7  | 45,72   | 1,800     |
| 6  | 38,10   | 1,500     |
| 5  | 30,48   | 1,200     |
| 4  | 22,86   | 0,900     |
| 3  | 15,24   | 0,600     |
| 2  | 7,62    | 0,300     |
| n  | L1 [mm] | L1 [Inch] |

P=Raster/pitch  
shown: BLZ 7.62HP/05/180LR

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmueller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

|                                       |  |                                 |                     |                                                               |  |
|---------------------------------------|--|---------------------------------|---------------------|---------------------------------------------------------------|--|
| General tolerance:<br>DIN ISO 2768-mK |  | 93941/5<br>24.04.17 HELIS_MA 01 |                     | Cat.no.: .                                                    |  |
|                                       |  | Modification                    |                     | <b>Weidmüller</b>                                             |  |
|                                       |  | Date                            | Name                | <b>BLZ 7.62HP/./180LH/LR</b><br>BUCHSENLEISTE<br>SOCKET BLOCK |  |
| Scale: 2:1                            |  | Drawn                           | 24.04.2017 HELIS_MA |                                                               |  |
| Supersedes: .                         |  | Responsible                     | KRUG_M              |                                                               |  |
|                                       |  | Checked                         | 11.05.2017 HELIS_MA | Product file: BLZ/SL7.62HP                                    |  |
|                                       |  | Approved                        | LANG_T              | 7375                                                          |  |

Drawing no. 3 49781 09  
Sheet 01 of 02 sheets